Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample comprising nitropolycyclic aromatic hydrocarbons are sent;

a silica gel/C8 separation column downstream of the auto-sampler configured to receive the methanol water mixture and the sample from the auto-sampler and configured to separate the sample comprising nitropolycyclic aromatic hydrocarbons into at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a ~~unit~~ temperature controlled tank for maintaining the silica gel/C8 separation column at a first predetermined temperature higher than room temperature;

~~a~~ an alumina/Pt-Rh reduction column downstream of the silica gel/C8 separation column configured to receive the at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene from the separation column and to aminate the separated nitropolycyclic aromatic hydrocarbons;

a ~~unit~~ temperature controlled tank for maintaining the alumina/Pt-Rh reduction column at a second predetermined temperature higher than

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~~room~~the first predetermined temperature; and

a fluorescence detector.

2. (Withdrawn and Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample comprising nitropolycyclic aromatic hydrocarbons are sent;

a silica gel/C8 separation column downstream of the auto-sampler configured to receive the methanol water mixture and the sample from the auto-sampler and configured to separate the sample containing nitropolycyclic aromatic hydrocarbons into at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a ~~unit~~ temperature controlled tank for maintaining the silica gel/C8 separation column at a first predetermined temperature higher than room temperature;

~~a~~ an alumina/Pt-Rh reduction column downstream of the silica gel/C8 separation column configured to receive the at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene from the separation column and to aminate the separated nitropolycyclic aromatic hydrocarbons;

a ~~unit~~ temperature controlled tank for maintaining the alumina/Pt-Rh reduction column at a second predetermined temperature higher than ~~room~~ the first predetermined temperature;

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an analysis column configured to separate an interfering component contained in the sample from the aminated separated nitropolycyclic aromatic hydrocarbons; and

a fluorescence detector.

3-16. (Canceled)

17. (Previously Presented) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.

18. (Withdrawn)   The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.

19. (New)   The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, wherein the silica gel/C8 separation column is directly connected to a downstream end of the auto-sampler, and the alumina/Pt-Rh reduction column is directly connected to a downstream end of the silica gel/C8 separation column.

20. (New)   The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 19, wherein the a first predetermined temperature is approximately 40°C.

21. (New and Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, wherein the silica gel/C8 separation column is directly connected to a downstream end of the auto-sampler, and the alumina/Pt-Rh reduction column is directly connected to a downstream end of the silica gel/C8 separation column.

22. (New and Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 21, wherein the a first predetermined temperature is approximately 40°C.